Urban Search & Rescue (US&R)

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USACE US&R Requirements

Provide personnel who have received specialized training specific to emergency US&R missions to provide technical assistance to Federal, State and Local emergency responders with the rescue of victims trapped in collapsed structures.

Collapsed Structure?

This is not what I would consider a collapsed

Collapsed Structure?

This is !!!!!

ESF #9 US&R

- FEMA Lead Agency
- 28 Federal Task Forces
  - 70 Members (mostly firefighters)
  - 72 hour self-sufficiency
  - Heavy rescue capability
  - $2.5 million (+) for equipment
  - Deploys 2 Structures Specialists (StS) per Task Force
- Incident Support Team (IST) manages all Federal US&R activities
- IST Engineering Cell manages and tracks all StS
- US&R Structures Specialists for FEMA Task Forces are all USACE trained

ESF #9 US&R NRP Taskings

Through USACE tasking, the following are provided:

- Trained Structures Specialist (StS) to supplement resources of US&R Task Forces and Incident Support Team (IST)
- Pre-disaster training for US&R Task Forces and IST Structures Specialists

USACE US&R Cadre

- Specialized Cadre of Structures Specialist (StS)
  - "Rescue trained" experienced engineers with structural background
- 2 week initial training
  - Refresher training
- 6 hour deployment to heavy rescue location
- 6 to 10 day deployment duration
- Primarily supports ESF #9

USACE Support
IST Engineering Cell

- Supports IST Engineers
- Task Force Augmentation
- Data Collection
- Mapping
- Assists with Search & Recon
- Building Monitoring
- Technical Support & Assistance
- Other Agency Support (Federal, State, Local)

Structures Specialist

- Building hazard mitigation
- Heavy crane and rigging
- Specialized shoring devices
- Building marking system

Structures Specialists Responsibilities

- Evaluating immediate structural condition of entry area during rescue operations
- Determining appropriate type and amount of structural hazard mitigation to minimize risks to rescue personnel on site
- Cooperating with and assisting other search and rescue resources

Mission Priorities

- Specific mission priorities decided by State; however, based on State Emergency Management input & Federal US&R mission status, the following listed for planning purposes:
  - Priority 1: Support FEMA Task Forces for either backfilling positions or augmentation. Support IST engineering element
  - Priority 2: Technical assistance to local jurisdictions on rescue efforts
  - Priority 3: Technical assistance to military personnel who will continue to provide basic & light US&R support
  - Priority 4: Other agency support (e.g., FBI, DEA, ATF)

Structures Specialist Requirements

- StS cadre comprised of USACE personnel with at least five years engineering experience consisting of basic construction techniques for wood, masonry, concrete, and steel
- Must be able to evaluate existing structures and know how loads are transferred throughout structure

Structures Specialist Training

- Structure Specialist Course 1 & 2
- Skills Training (recently added 2 day course)
- Rescue Systems I (basic fire rescue skills course)
- Critical Incident Stress Awareness & Management
- WMD, Confined Space, & Hazardous Material (HAZMAT) Awareness
- Structural Collapse Patterns
- Hazard Identification & Building Monitoring

Structures Specialist Training

- Rapid Assessment of Building Structures
- Building Triage & Marking System
- Advance Shoring
- Shoring Calculations
- Heavy Crane & Lifting Techniques
- Several Tabletop Exercises Based on Past US&R Incidents
- Field Exercise Conducting Building Triage, Shoring Construction, and Rescue Operations

Case Study

USACE US&R Structures Specialist
Response to 911

Why Use IA PRT to Manage This Mission?

- ESF #3 TL and ATLs - Pier 72
- State of New York EOC - Pier 70
- New York District - End of Pier 72
- IST Engineer Cell - Javits Center
- USACE StS - Ground Zero

And all they had was me!

Questions?